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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,888	04/06/2001	Chung Liu	PALM-3588.US.P	5564

7590 08/24/2004

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San Jose, CA 95113

EXAMINER
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WU, QING YUAN

ART UNIT	PAPER NUMBER
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2127

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/827,888	<b>Applicant(s)</b> LIU ET AL.	
	<b>Examiner</b> Qing-Yuan Wu	<b>Art Unit</b> 2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 May 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-28 are pending in the application.

#### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “computer system 110” (page 19, line 22 and page 20, line 9) and “Program A 601a” (page 27, line 16) as described in the specification must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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3. Fig. 7 and Fig. 8 are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 105a of Fig. 7, and 105b of Fig. 8 are not found in the specification. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In the instant application, the abstract exceeded the 150 words limitation. Appropriate correction is required.

***Claim Objections***

5. Claim 28 is objected to because of the following informalities:

Claim 28 should refer to the “system” as described in claim 19 and not “method”.

Appropriate correction is required. Applicant is required to correct the claim language in response to this office action.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 13-14, and 22-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The following terms lack antecedent basis
  - i. Said electronic device- claims 13-14, and 22-23.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3, 8, 19, 21 and 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Song et al et al (U.S. Patent 6,061,711) in view of Bodin et al (U.S. Patent 5,675,762)

10. As to claim 1, Song et al teach the invention substantially as claimed including a method of switching between said plurality of programs, comprising the steps:

determining a jump program from said plurality of installed programs [606, Fig. 6; col. 2, lines 7-9; col. 10, lines 57-62];

storing a program state of a currently running program into a context packet [abstract ; col. 2, lines 32-34] and calling the jump program [abstract, lines 9-11; 626, 628, 632, Fig. 6].

11. Song et al do not teach releasing temporary memory used by said currently running program. However, Bodin et al teach the releasing of memory used by a currently running program when the currently running program is switch to the background [Bodin et al, col. 6, lines 44-47; col. 2, lines 49-52; 420, Fig, 5].

12. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to combine the teaching of Song et al and Bodin et al because Bodin et al's method of releasing memory of currently running program would improve the transparency and throughput of Song's system by allowing re-use of memory once the context switching is done.

13. As to claim 3, Song et al teach the invention substantially as claimed including:
  - a) locating a return program context packet corresponding to a return program, said return program being one of said plurality of installed programs [col.13, line 40 to col.14, line 7]; and
  - b) calling said return program with said return program context packet as input, said return program using said return program context packet to restore a program state to said return program [col.13, line 40 to col.14, line 7].
14. As to claim 8, Song et al teach the invention substantially as claimed including the storing step comprises the steps:

storing a program identifier as part of said context packet, said program identifier corresponding to said currently running program [abstract] and storing program-specific data as part of said context packet, said program specific representing said program state [abstract].
15. Song et al do not specifically teach the step of storing a visual identifier as part of said context packet, said visual identifier used to represent said currently running program. However, Song et al disclosed that the state information or context packet contains the state of the program being context switched out.



16. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have modified Song et al's method of context switching to include a visual identifier to allow a user to easily perform the switching function.

17. As to claims 19, 21 and 26 these are system claims that correspond to the method claims 1, 3 and 8. Therefore, they are rejected for the same reason as claims 1, 3 and 8 above.

18. Claims 2, 4-7, 9-18, 20, 22-25, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Song et al, in view of Bodin et al as applied to claims 1 and 19 above, and further in view of Siitonen et al (U.S. Patent 6,049,796).

19. As to Claim 10, Song et al teach the invention substantially as claimed in claim 1. Song et al in view of Bodin do not teach a hand-held personal digital assistant, hereafter "PDA", for performing the method of claim 1. However, Siitonen et al teach a PDA that "include features such as calculators, calendars, memorandum pads" [col.1, lines 10-28].

20. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Song et al, Bodin et al, and Siitonen et al because Siitonen et al's teaching of a PDA would increase the benefit to efficiently utilize the plurality of applications/features available in a PDA device (i.e. producing a commercially successful and

useful product) without having to increase electronic processor performance [Song et al, col. 1, lines 43-47; Siitonen et al, col. 1, lines 42-58].

21. As to claim 11, Song et al as modified further teach creating input data for said jump program based on data in said currently running program [Siitonen et al, col. 2 lines 38-50; col. 7, lines 10-17].

22. As to claims 12, and 17 these claims correspond to claims 3 and 8. Therefore, they are rejected for the same reason as claims 3 and 8 above.

23. As to claims 13 and 14, Song et al as modified further teach electronic devices is/are palm-sized computer system and/or a wireless telephone [Siitonen et al, col. 4, lines 27-51].

24. As to claim 15, Song et al as modified further teach the determining step comprises the steps:

- a) displaying a menu of choices for said jump program [Siitonen et al, col. 2, lines 38-50; col. 4, line 65 to col. 5, line 2]; and
- b) responding to user input for selecting one of said choices for said jump program [Siitonen et al, col. 5, lines 29-38].

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25. As to claim 16, Song et al as modified further teach the determining step comprises the steps:

- a) responding to user selection of a button, said button corresponding to one of said installed programs; and
- b) using said corresponding installed program as said jump program [Siitonen et al, col. 5, lines 29-38].

26. As to claim 18, Song et al as modified further teach:

- a) responding to user selection of a return button, said return button corresponding a previously running program, said previously running program being one of said installed programs; and
- b) using said corresponding previously running program as said return program [Siitonen et al, col. 8, lines 24-30].

27. As to claims 2, 4-7, 9, 20, 22-25, and 27-28 they correspond to claims 11-18. Therefore, they are rejected for the same reason as claims 11-18 above.

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


U.S. Patent No. 6,526,431 to Bigbee et al, Patent No. 5,530,865 to Owens et al, Patent No. 6,047,122 to Spiller, and Patent No. 5,613,114 to Anderson et al teach context

switching. U.S. Patent No. 5900875 to Haitani et al teach method and apparatus for interacting with a portable computer system.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qing-Yuan Wu whose telephone number is (571) 272-3776. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
MENG-AL T. AN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

Qing-Yuan Wu

Examiner

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